PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
4-20921/A		
International application No.	International filing date (day/month/year)	Priority date (day/month/year)
PCT/EP 97/ 03172	18/06/1997	27/06/1996
International Patent Classification (IPC) or national classification and IPC		
A61K31/41		
Applicant		
NOVARTIS AG et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consists of a total of _____ sheets.

3. This report contains indications and corresponding pages relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
19/01/1998	03. 08. 1998
Name and mailing address of the IPEA/	Authorized officer
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I. Basis of the report

1. This report has been drawn up on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*

☒ the international application as originally filed

☐ the description, pages , as originally filed

pages , filed with the demand

pages , filed with the letter of

☐ the claims, Nos. , as originally filed

Nos. , as amended under Article 19

Nos. , filed with the demand

Nos. , filed with the letter of

☐ the drawings, sheets / fig. , as originally filed

sheets / fig. , filed with the demand

sheets / fig. , filed with the letter of

2. The amendments have resulted in the cancellation of:

☐ the description, pages:

☐ the claims, Nos.

☐ the drawings, sheets / fig.

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2 (c)).

4. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty	Claims	1- 27	YES
	Claims		NO
Inventive Step	Claims	18- 26	YES
	Claims	1- 17,27	NO
Industrial Applicability	Claims	1- 26,27*	YES
	Claims		NO

2. Citations and Explanations

*see point 5. below

1. Reference is made to the following documents:
D1: WO- A- 9524901
D2: Yakuri To Chiryo, 1995, 23(12, 3241- 7 (see the corresponding Chemical Abstract 124:220073)
D3: European Heart Journal 16, 1995, p. 61

2. The present application satisfies the criterion set forth in Articles 33(2) PCT because the subject- matter of Claims 1- 27 is new in respect of the prior art.

3. The present application does not satisfy the criterion set forth in Article 33(3) PCT because the subject- matter of claims 1- 7, 8- 15, and 27 does not involve an inventive step (Rule 65(1)(2) PCT).

The problem of the present application is to make an oral dosage form for valsartan, possibly associated with hydrochlorothiazide, which form is a small dosage form relative to the amount of active agent used. The solution proposed by the Applicant is a solid oral dosage form comprising valsartan and additives suitable for the preparation of solid oral dosage forms by compression methods, which does not mean that the dosage form is in compressed form.

A solid oral dosage form can be a pharmaceutical form such as an oral powder formulation, a granulate which is a powder of greater size, a cachet, a capsule, a tablet , a dragée.
It appears from the description of the present application on page 1, 5th paragraph, that

"capsules are undesirable since large capsules must be used to accommodate effective amounts of active agent, which in the case of valsartan, is of low density and is therefore rather bulky", which means that capsules, which must be considered to be oral dosage forms, do not solve the problem of the present application. It is also highly credible that powders neither solve the problem.
Therefore, the term "solid dosage form" in independent claims 1, 8 and 27 includes pharmaceutical dosage forms which do not achieve the wanted technical effect and do not solve the problem of the present application.
Consequently, the subject- matter of claims 1- 7, 8- 15 and 27 does not meet the requirements of Article 33(3) PCT.

Moreover the document D2, which is considered to represent the most relevant state of the art, discloses the administration p.o. of valsartan and hydrochlorothiazide, from which the subject-matter of independent claim 8 differs in that D2 does not specify in which form the composition is administered. The problem to be solved by the present invention may therefore be regarded as how to administer the preparation per os.
The solution proposed in independent Claim 8 of the present application, namely using any solid oral dosage form (powder, capsule, ...) of the actives at any dosage, cannot be considered as involving an inventive step (Article 33(3) PCT) because it is a normal design option for the skilled man.
Moreover, the choice of a particular dose of valsartan and hydrochlorothiazide, and of known excipients for solid oral dosage forms seems also to be the results of routine procedures (see the doses used in D2 and D3). Consequently, the subject- matter of claims 8- 17 and 27 does not seem to be inventive over D2 (Article 33(3) PCT).

4. The subject- matter of claims 18- 26 satisfies the criterion set forth in Article 33(3) PCT because they involve an inventive step in view of the prior art.
None of the documents of the prior neither discloses, nor suggests the preparation of a compressed form comprising valsartan. Consequently, the subject- matter of claims 18- 22, 23, 24, 25 and 26 is inventive over D1, D2 and D3 (Article 33(3) PCT).

5. For the assessment of the present claim 27 on the question whether it is industrially applicable, no unified criteria exist in the PCT. The patentability can also be dependent upon the formulation of the claim. The EPO, for example, does not recognize as industrially applicable the subject- matter of claims to the use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D2 and D3 is not mentioned in the description, nor are these documents identified therein.

2. The statement "incorporated herein by reference", page 4, is obviously irrelevant and unnecessary, and should therefore be deleted (Rule 9.1.iv PCT).

3. The terms used on page 4, last paragraph, appear to be a registered trade marks but have not been identified as such.

4. Claim 26 contains a reference to the description. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary.

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Although claims 8, 23, 24, 25, 26 have been drafted as separate independent claims, they appear to relate effectively to the same subject- matter and to differ from each other only with regard to the definition of the subject- matter for which protection is sought. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection (Article 6 PCT).
In order to overcome this objection, it would appear appropriate to file an amended set of claims defining the relevant subject- matter in terms of a minimum number of independent claim(s) in each category followed by dependent claims covering features which are merely optional (Rule 6.4 PCT).

2. The following feature of claim 27, "headache and chronic heart failure", is not referred to in the description. Claim 27 is therefore not supported by the description as required by Article 6 PCT.